

### REMARKS

Reconsideration of this patent application is respectfully requested in view of the foregoing amendments and the following remarks.

The Office Action made the following formal rejections under 35 U.S.C. 112.

The Patent Examiner objected to the recitation "zones of a single body" on line 10 of claim 23. In response to this objection, the phrase "are zones of" was cancelled from claim 23.

The Patent Examiner also objected to the recitation "formed as a bead" on line 15 of claim 23. In response to this objection, this language has been changed to read "in the form of an endless bead" in claim 23.

There was an objection to the recitation "soft" on line 3 of claim 27. In response to this objection, "soft plastic" was cancelled and was replaced by "thermoplastic elastomer (TPE)" in claim 27.

There was an objection to the recitation "a molded-in bush" on line 2 of claim 28. In response to this objection, the phrase

"molded-in" was cancelled from claim 28.

There was an objection to the recitation "formed by a wall offset so as to mold a foam injection-formed bead" on lines 2-3 of claim 35. In response to this objection, this objected to terminology was cancelled from claim 35.

There was an objection to the recitation "an unfoamed boundary layer" on lines 3-4 of claim 36. In response to this objection, claim 36 was amended to recite that it is the density of the motor vehicle door internal element which is being referred to and not an additional element.

There was an objection to the recitation "the injection-formed material" on line 2 of claim 37. In response to this objection, claim 37 was amended to cancel "foam injection-formed" and to insert "thermoplastic is made of a copolymer as a base component."

There was an objection to the recitation "high melting strengths polymer" on line 3 of claim 37. In response to this objection, the term "high melting strengths" was cancelled from claim 37 and the term "based on polypropylene" was added to this claim.

There was an objection to the recitation "end face" on line 3 of claim 39. In response to this objection, the language "provided on an end face" has been cancelled from claim 39.

There was also an objection to claim 41 which recites the broad recitation inserts, and the claim also recites bushes and threaded inserts which is the narrower statement of the range/limitation. In response to this objection, claim 41 was amended to cancel the language "such as bushes and threaded inserts."

There was also an objection to the recitation "said predetermined amount...internal element" on lines 3-5 of claim 42. In response to this objection, claim 42 was amended to recite "so as to form a trough (65)" and to cancel "predetermined amount of material."

There was an objection to the recitation "means" on line 3 of claim 43. In response to this objection, claim 43 was amended to change "means" to "elements."

There was an objection to the recitation "the outer skin" on line 4 of claim 44. In response to this objection, "the" was changed to "an" before "outer skin."

For all the reasons set forth above, all of the claims are believed to be in complete compliance with all the requirements of 35 U.S.C. 112. Withdrawal of this ground of rejection is respectfully requested.

Support for various amendments to the claims is found in the following parts of the description of the Specification.

Regarding the amendments to claim 27: see page 3, lines 9-12, and FIG. 5 of the Specification.

Regarding the amendments to claim 28: see page 11, lines 19-33, and FIG. 7 of the Specification.

Regarding the amendment to claim 37: see page 14, lines 13-28 of the Specification;

Regarding the amendments to claim 42: see page 19, lines 27 to page 21, line 21 of the Specification.

The Applicant comments upon the prior art rejections of the claims as follows.

In the Office Action, the Patent Examiner has rejected the claims under 35 U.S.C. 103(a) as being unpatentable over *Basson*

et al. in view of *Gonas*, and further in view of *Staser et al.* '096 and further in view of *Scheck et al.* and further in view of *Bertolini et al.* and further in view of *Ishikawa*.

An essential feature of the motor vehicle door internal element according to the present invention is the fact that the solid boundary layers (52) and the foamed, porous central layer (54) are made of the same thermoplastic material and define one single body, produced by a single foaming process, wherein said solid boundary layers (52), produced by said single foaming process, are formed integrally with each other at an end face (15) of the motor vehicle door internal element.

*Basson et al* (U.S. Patent No. 4,882,842) is silent concerning boundary layers and a foamed central layer.

*Basson et al.* discloses a modular trim panel unit for the manufacturing and assembling of doors for motor vehicles. The trim panel unit (200) illustrated in FIGS. 3 and 3A is a multi layer construction comprising an inner panel layer 201, a second panel layer 202, a moisture or vapor barrier layer 203, and a window sealing gasket 204.

The panel layers 201 and 202 are separately molded panel layers. Fasteners (for example, screw fasteners 351 shown in

FIG. 4) are used to fasten these panel layers. The barrier layer 203 is affixed to layer 201 during the assembly process (column 9, lines 23-32).

The inner panel layer 201 supports and holds various mechanical and electrical components and elements of the motor vehicle door. Thus, the inner panel layer 201 is a support element. However, *Basson et al.* is silent whether the inner panel layer 201 is also a sealing element.

Another important feature of the motor vehicle door internal element according to the present invention is the fact that a sealing body (12) in the form of an endless bead is disposed at an edge of the motor vehicle door internal element (page 16, lines 10-14 of the description in the present Specification; the term "closed-end bead" means "endless bead").

The modular trim panel unit disclosed by *Basson et al.* can be provided along its top with a window sealing gasket 204. This gasket 204 has a strip-like form and serves as a wiping and sealing surface for the window 7, after the door has been completely assembled.

Thus, *Basson et al.* does not disclose a motor vehicle door internal element which is a support as well as a sealing element

having boundary layers and a foamed, porous central layer lying between the two solid boundary layers, wherein said boundary layers and said foamed, porous central layer (54) are made of the same thermoplastic material and define one single body, produced by a single foaming process, wherein said solid boundary layers, produced by said single foaming process, are formed integrally with each other at an end face of the motor vehicle door internal element.

Moreover, *Basson et al.* does not disclose such a motor vehicle door internal element comprising a sealing body in the form of an endless bead disposed at an edge of the motor vehicle door internal element.

*Gonas (U.S. Patent No. 5,700,050)* discloses a safety molding for an interior trim piece of an automotive vehicle, in particular an interior door panel as shown in FIGS. 1 and 6. This known safety molding (or interior door panel (40), respectively) comprises a blow molded shell (42) of resilient plastic material shaped to have an exterior facing section thereof abutable against a passenger compartment facing surface of an exterior body (20) of said automotive vehicle. The blow molded shell (42) has a first interior section (62d) that is filled with a structurally engineered foam (64) that is normally rigid to be resistant and withstand compressive forces under a predetermined

amount to provide structural strength to said molding but is compressible under a compressive force over said predetermined amount (claim 1).

The blow molded shell (42) is no zone (or part) of one single body produced by a single foaming process. In fact, the shell (42) is a first body produced by blow molding before a hollow section (62d) thereof is filled with the structurally engineered foam (64), wherein the foam (64) defines a second body (the different hatchings of the shell 42 and the foam 64 in FIGS. 6 and 9).

The safety molding disclosed by *Gonas* faces directly to the passenger compartment. In the region of the structurally engineered foam (64) there is no interior trim panel which covers the safety molding. If the safety molding taught by *Gonas* would be covered with an interior trim panel as the inner panel layer 201 of *Basson et al.* is covered with an interior trim panel 1, then the energy absorbing properties of the safety molding are ineffective or almost ineffective.

Moreover, the safety molding disclosed by *Gonas* has not the necessary strength of a support element for holding various mechanical and electrical components and elements of a motor vehicle door, e.g., a window lift mechanism and a window lift



motor. *Gonas* is silent concerning a support element for holding mechanical and electrical components of a motor vehicle door.

For these reasons, it would not be obvious to one skilled in the art to provide the door internal element 201 of *Basson et al.*, which door internal element 201 is a support element to be arranged between a door outer side 2 of a motor vehicle door and an inner lining 1 (i.e. interior trim panel), with a sandwich construction, as taught by *Gonas*, to improve the energy absorbing properties of the door.

For all these reasons, the primary references of *Basson* or *Gonas* fail to teach, suggest or disclose the present invention as claimed. The deficiencies in the teachings of the primary references are not overcome by the disclosures of the secondary references to *Staser*, or *Scheck*, or *Bertolini*, or *Ishikawa*.

*Staser*, U.S. Patent No. 5,535,553 in column 1, lines 56 to 60 discloses door module with a base mounting frame for vehicle door hardware. The frame includes a network of integrally molded structural elements and hardware mounting surfaces with various interfacing features, molded in a single plastic piece.

*Staser* also discloses in column 2, lines 3 to 10 that the module generally includes a one-piece molded plastic frame

module generally includes a one-piece molded plastic frame constructed with preferred hollow tubular structural elements, integrally molded hardware mounting surfaces and preferably integrates at least one window guide channel into the structure. Specifically designed features are preferably molded into the frame for mounting various hardware items and for geometric dimensioning and to tolerancing purposes.

*Scheck, U.S. Patent No. 6,038,817* in column 1, lines 5 to 8, discloses a Bowden tube window regulator with cable length compensation that allows the compensation of comparatively large cable lengths without excessively tensioning the cable loop.

*Scheck* also discloses in column 2, lines 25 to 30 providing a Bowden tube window regulator of the generic kind so that solely so-called genuine cable slacks are compensated and undesired tensions of the adjustment system are avoided.

*Bertolini, U.S. Patent No. 6,029,403* in column 1, lines 6 to 14, discloses a method for mounting a window-lifter mechanism and its carrier in a shell of a vehicle door, as well as the corresponding vehicle door.

More specifically, *Bertolini* discloses a vehicle door equipped with a window lifter of the type having a cable and drum

with at least one rail for guiding the travel of the window, and more particularly of the double rail-drum type (known as "double lift").

*Bertolini* also provides in column 1, lines 57 to 63, a method of mounting a window-lifter mechanism and its carrier in a door which allows the total length of the rail or rails to be increased by extending the length of the rail or rails into the volume available inside the rim of the shell, i.e. below the lower edge of the opening through which the window-lifter mechanism is introduced.

*Ishikawa, U.S. Patent 5,102,163* in column 3, lines 8 to 23, discloses impact energy absorbing structures.

Accordingly, *Ishikawa* provides an impact energy absorbing structure for a vehicle, employing shock absorbing means that are not susceptible to the action of light external forces tending to produce flaws such as dents therein and that are capable of effectively absorbing impact energy that acts thereon in case of a collision.

*Ishikawa* provides an impact energy absorbing structure for a vehicle, capable of reducing impact energy applied to both of an occupant's chest and lumbar region and capable of reducing the

effect of shocks particularly to the occupant's chest.



Thus, *Staser, Scheck, Bertolini* and *Ishikawa* fail to teach, suggest, or disclose the claimed invention.

In order to observe these differences directly, it is respectfully requested that the Patent Examiner refer to a sample of the motor vehicle door internal element according to the present invention, which was previously filed in the U.S.P.T.O.

In view of these amendments, it is firmly believed that the present invention, and all the claims, are patentable under 35 U.S.C. 103 over all the prior art applied by the Patent Examiner. A prompt Notification of Allowability is respectfully requested.

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Enclosures: 1. Copy of Petition for Three Month Extension of Time

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on January 12, 2006.

Kelly Espitia